

Claims

1. A method to allocate bandwidth, which method is intended for a central controller of a network, comprising the following steps

allocating a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain
5 connection is a requesting terminal which is a terminal of said network or said central controller,

characterized by

freeing a certain amount of the allocated predetermined amount of bandwidth, said certain amount being the difference of said predetermined
10 amount of bandwidth and a needed amount of bandwidth indicated by said owner, and

in case said owner requests a re-allocation of at least parts of the freed bandwidth, immediately re-allocating as much of the freed bandwidth, so that said indicated amount of bandwidth is available to said owner.

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2. The method according to claim 1,

characterized by

allocating some or all of said certain amount of bandwidth to a connection without quality of service requirements, the connection being a
20 connection of the network.

3. The method according to claim 1 or 2,

characterized in that

said requesting terminal is operated according to anyone of claims 4 to 6.

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4. A method to reserve bandwidth for a connection of a network, which method is intended for a requesting terminal or a central controller of said network, wherein

the requesting terminal and/or the central controller comprises a
30 transmit queue for buffering sending data, and

the requesting terminal is a terminal of a network with said central controller,

comprising the following steps.

reserving a predetermined amount of bandwidth for providing a certain
35 quality of service for said connection

characterized by

determining the filling status of the transmit queue which indicates how much sending data is in the transmit queue,

- 5 determining a needed amount of bandwidth which is needed in a predetermined future, in particular in a predetermined future transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding said predetermined amount of bandwidth, and indicating said needed amount of bandwidth to said central controller.

- 10 5. The method according to claim 4,

characterized in that

said central controller is operated according to anyone of claims 1 to 3.

6. The method according to anyone of the preceding claims,

15 **characterized in that**

said network is an ad hoc network, in particular operated according to the ETSI HIPERLAN/2 standard.

7. A central controller of a network comprising

20 a bandwidth allocation means that allocates a predetermined amount of bandwidth to a connection with a certain quality of service requirement,

the owner of said connection being said central controller or a requesting terminal,

characterized by

25 a bandwidth freeing means that receives a request signal sent out by said owner indicating a needed amount of bandwidth and that - in particular in the case that said certain amount of bandwidth neither exceeds said predetermined amount nor said needed amount of bandwidth - frees a certain amount of bandwidth which is the difference of said predetermined amount of bandwidth and said needed amount of bandwidth, and

30 a bandwidth re-allocation means that - in particular in the case that said certain amount of bandwidth neither exceeds said predetermined amount nor said needed amount of bandwidth - immediately re-allocates as much of said certain amount of bandwidth, so that said indicated amount of bandwidth according to said request signal is available to said owner.

8. The central controller according to claim 7,

characterized by

a transmit queue for buffering sending data, and

a monitoring means, that monitors the filling status of said transmit queue and indicates said needed amount of bandwidth, which depends on the filling status, to said bandwidth freeing means and/or bandwidth re-allocations means.

9. The central controller according to claim 7 or 8,

characterized in that

10 said network is an ad hoc network, in particular operated according to the ETSI HIPERLAN/2 standard.

10. A requesting terminal of a network having a connection with other terminals of the network or with a central controller of the network,

15 the connection requiring a certain quality of service and therefore a predetermined amount of bandwidth, comprising

a transmit queue for buffering sending data,

characterized by

20 a monitoring means, that monitors the filling status of said transmit queue and sends out a request signal to said central controller indicating a needed amount of bandwidth, which depends on the filling status.

11. The central controller according to claim 10,

25 **characterized in that**

said network is an ad hoc network, in particular operated according to the ETSI HIPERLAN/2 standard.